

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
9 September 2005 (09.09.2005)

PCT

(10) International Publication Number  
**WO 2005/082910 A1**

(51) International Patent Classification<sup>7</sup>: **C07D 519/02**

(21) International Application Number:  
PCT/US2005/005059

(22) International Filing Date: 17 February 2005 (17.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/546,561 20 February 2004 (20.02.2004) US

(71) Applicants (for all designated States except US): **IVAX CORPORATION** [US/US]; 4400 Biscayne Boulevard, Miami, FL 33137 (US). **IVAX PARMAACEUTICALS, S.R.O.** [CZ/CZ]; Ostravská 29, 747 70 Opava 9 (CZ).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CVAK, Ladislav** [CZ/CZ]; Solná 19, 746 01 Opava (CZ). **HOLAN, Jiri** [CZ/CZ]; Rolnická 30, 747 05 Opava 5 (CZ). **RODER,** Lubomir [CZ/CZ]; Sluneční 2, 746 01 Opava (CZ).

(74) Agent: **DIXIT, Manesh, A.**; Ivax Corporation, 4400 Biscayne Boulevard, Miami, FL 33137 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/082910 A1

(54) Title: PROCESS FOR ISOLATION OF ERGOT ALKALOIDS FROM ERGOT

(57) Abstract: Ergot alkaloids are isolated from ergot in high yields and purity by a process including extracting *Claviceps purpurea*, i.e., ergot, with a toluene/ethanol solvent mixture to obtain a primary extract. The primary extract can be further subjected to two steps of liquid-liquid extraction to purify the alkaloids resulting in a purified toluene extract. The toluene extract can be further partially evaporated and a crystalline product obtained by crystallization from the toluene or a mixture of toluene and an aliphatic hydrocarbon.